

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
9 June 2005 (09.06.2005)

PCT

(10) International Publication Number
WO 2005/053057 A1

(51) International Patent Classification⁷: **H01L 51/40**

(21) International Application Number:
PCT/IL2004/001090

(22) International Filing Date:
28 November 2004 (28.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/525,179 28 November 2003 (28.11.2003) US
159774 8 January 2004 (08.01.2004) IL
159776 8 January 2004 (08.01.2004) IL
159775 8 January 2004 (08.01.2004) IL

(71) Applicant (for all designated States except US): **PIXDRO LTD.** [IL/IL]; 27 Harakevet Street, 93502 Jerusalem (IL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CARMON, Ami-ram** [IL/IL]; 27 Harakevet Street, 93502 Jerusalem (IL). **VRONSKY, Eli** [IL/IL]; 7 H'Ella Street, 47212 Ramat Hasharon (IL).

(74) Agent: **REINHOLD COHN AND PARTNERS; P.O.** Box 4060, 61040 Tel Aviv (IL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

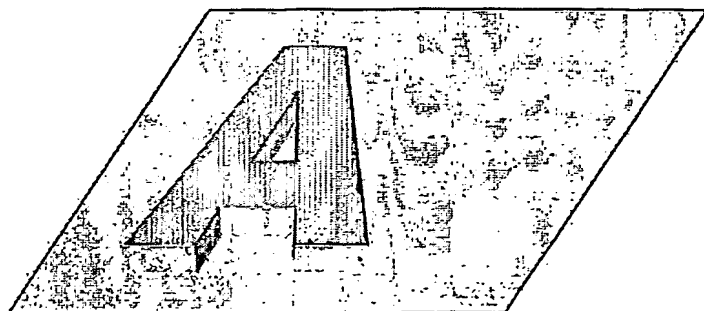
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND SYSTEM FOR PATTERNING AN ORGANIC LIGHT EMITTING DIODE DISPLAY BY PRINTING



Patterned PPV Layer

(57) Abstract: A device having a static image capable of self-illumination when activated, and comprising constituent pixels printed using a light emitting ink on a layer of an organic light emitting diode (OLED) device so as to form a pattern whose contour is determined only by the pixels and does not require pre-shaping of the layer. The pixels may be printed using ink jet technology on a layer of the OLED, such as the PEDOT layer or cathode of the OLED requiring only a single anode and cathode for activating all the pixels simultaneously thus avoiding a need for separate addressing of selected pixels. Colored pixels may be formed by using different colored light emitting inks.



WO 2005/053057 A1